



DC/DC CONVERTER

PSC18

In: 110/220V_{DC}

Out: 24/48/60/110/220V_{DC} (1.8kW)

KEY FEATURES

- 1/3 x 19" module, 6U
- "Hot plug-in" capability
- Active current sharing
- CAN-Bus interface
- Temperature compensation of the charge voltage
- Digital display for output voltage, current and adjustment values
- Front side connectors
- Convection cooling

PRODUCT DESCRIPTION

A combination of modern DC to DC switching power conversion technology and a flexible 19" compatible mechanics such as the PSC gives many advantages and is suitable for a wide range of applications.

A constant voltage and current control circuit perform the correction of output voltage deviations due to transient deviations of the input voltage or load within less than 1.5ms and permit constant current operation down to continuous short circuit.

A microcontroller unit equipped with two control keys and digital displays at the front panel provides permanent monitoring of input and output voltage, output current and temperature. This feature offers easy adjustment and programming of output parameters and monitoring thresholds. To increase the power supply, it is possible to operate the PSC modules in parallel connection.

For the control of all parameters and measurement values it is advantageous to use the monitoring device MU1000C, which communicates with the modules per standard CAN-Bus interface.

APPLICATIONS

DC power supply facilities with or without input-sided battery in all areas of industry, power generation and power distribution.



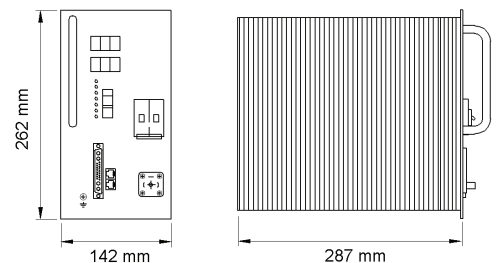
TECHNICAL DATA

Type	PSC18/x/ 24-40-CAN	PSC18/x/ 48-30-CAN	PSC18/x/ 60-25-CAN	PSC18/x/ 110-13.4-CAN	PSC18/x/ 220-6.7-CAN	PSC18/x/ 220-6.7 Relay
Article code x=110	200-018-740.00	200-018-750.00	200-018-760.00	200-018-770.00	200-018-780.00	200-018-780.09
Article code x=220	200-018-840.00	200-018-850.00	200-018-860.00	200-018-870.00	200-018-880.00	- - -
Nominal input voltage	110VDC & 220VDC +15/-20%; according to the article codes					
Nominal input current @110VDC/220VDC	9.8/4.9ADC	14.5/7.3ADC	15.2/7.6ADC	14.9/7.4ADC	14.9/7.4ADC	14.9/7.4ADC
Efficiency	≥90%	≥91%	≥91%	≥91%	≥91%	≥91%
Internal input fusing	16A gL					
Nominal output voltage	24VDC	48VDC	60VDC	110VDC	220VDC	220VDC
Nominal output current	40.0ADC	30.0ADC	25.0ADC	13.4ADC	6.7ADC	6.7ADC
Adjustable range	20-40A	15-30A	12.5-25A	6.7-13.4A	3.4-6.7A	3.4-6.7A
Charging characteristic line	IV-line acc. to DIN 41772/DIN 41773					
Output voltage V01 (trickle charging)	27.2VDC ±1% (23.4 to 28.8V adjustable)	54.5VDC ±1% (46.6 to 57.6V adjustable)	68.1VDC ±1% (58.5 to 72V adjustable)	122.6VDC ±1% (105 to 130V adjustable)	245.2VDC ±1% (211 to 260V adjustable)	245.2VDC ±1% (211 to 260V adjustable)
Output voltage V02 (boost charging)	28.8VDC ±1% (24 to 30V adjustable)	57.6VDC ±1% (48 to 60V adjustable)	72.0VDC ±1% (60 to 73V adjustable)	129.6VDC ±1% (108 to 135V adjustable)	259.2VDC ±1% (216 to 270V adjustable)	259.2VDC ±1% (216 to 270V adjustable)
Output voltage V03 (Battery test)	22.2VDC ±1% (20.4 to 24V adjustable)	44.4VDC ±1% (40.8 to 48V adjustable)	55.5VDC ±1% (51 to 60V adjustable)	99.9VDC ±1% (91.8 to 108V adjustable)	200VDC ±1% (184 to 216V adjustable)	200VDC ±1% (184 to 216V adjustable)
Voltage ripple	≤ 20mV _{pp}	≤ 20mV _{pp}	≤ 20mV _{pp}	≤ 100mV _{pp}	≤ 200mV _{pp}	≤ 200mV _{pp}
Psophometric acc. to CCITT-A	≤ 1.2mV _{rms}	≤ 1.8mV _{rms}	≤ 1.8mV _{rms}	- - -	- - -	- - -
Dynamic accuracy of the charging voltage	< 3% V _{Nom} at load transients between 10% - 90% - 10% I _{Nom} , recovery time t ≤ 1.5ms					
Short circuit protection	Continuous short circuit proof, I _x I _{Nom}					
Parallel operation	Yes, <20 pieces, load sharing appr. 10% I _{Nom}					
Internal decoupling at the output	no					
LED signalling	Input O.K. (green); V01 (green); V02 (green); I0 (yellow); V< (green); V> (red); Alarm (red)					
Digital displays	Output voltage, output current					
Isolated signalling contacts	"General fault" and "V0<"					
Monitoring	Output voltage high/low, output voltage, output current, short circuit					
External functions	Active current sharing, boost charge and battery test function, temperature compensation of the charging voltage, external sensor lead for the output voltage, remote ON/OFF, optocoupler signal "V0 O.K.", "Mains O.K." and "Constant current operation"					
Communications interface	CAN-Bus interface for communication with central monitoring unit (MU1000C, optional)					- - -
Ambient temperature	Operation: -20°C to +45°C, storage: -40°C to +85°C					
Climatic conditions	IEC 721-3-3 class 3K3/3Z1/3B1/3C2/3S2/3M2					
Max. installation altitude	<1500m					
Audible noise	< 30dB (A) in 1m distance					
Construction	1/3 x19" module, 6U for mounting in sub racks acc. to DIN 41 494, front connectors					
Dimensions (W/H/D)	142/262/287mm					
Weight	approx. 8.4kg					
Cooling	Natural convection					
Type of enclosure / Protection class	IP20 (mech.) / 1 (electr.)					
Surfaces	Front panel: powder coating RAL 7035, black imprint; constructive parts: anodized					
CE conformity	yes					
Compliance to safety standards	EN 60950-1, VDE 0100 part 410, VDE 0110, EN 50178, EN 60146					
Compliance to EMC standards	EN 55011, EN 55022 class „B“, EN 61000-4 part 2-5					

OPTIONS

Article	Article Code
Connector set for input/output <40A	880-100-STK.01
Connector set for input/output >40A	880-100-STK.02
Connector set for input/output , PSC 216V	880-100-STK.03
19" subrack, 7 U	880-MEC-BGT7.00

DIMENSIONS



DS_PSC18_2007_E_R02 - Subject to change without notice - Eltek Valere Industrial GmbH

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